



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,911	07/10/2003	Michael Yip	2717P029C	4219
8791 7590 12/17/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER HYUN, SOON D	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 12/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/617,911

Applicant(s)

YIP ET AL.

Examiner

Soon D. Hyun

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 34-37, 42, 43, 46-52, 54, and 57-74 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-33 of U.S. Patent No. 6,618,388. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 12-33 of U.S. Patent Number 6,618,388 encompasses the limitations of claims of instant application. Moreover, omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art. It is well settled that the omission of an element and its functions is an obvious expedient if the remaining elements performs the same function as before *In re Karlson*, 163 USPQ 184 (CCPA 1963). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd. App. 1969).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 34-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claimed subject matter "data structure" is descriptive material and is not statutory. See e.g., *Wamerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760.

Examiner recommends to replace the words "A (The) data structure stored in a machine-readable medium" in the preamble with -- computer-readable medium encoded with computer executable instructions --.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 34, 41, 42, 48, and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugiyama (U.S. PG-Pub 2001/0005381).

Re Claims 34 and 42, Sugiyama teaches in fig. 3, a user 36A (a first network device) for providing a packet to be forwarded to ATM edge node (a second network device) using a data structure stored in memory (See fig. 5) comprising field 54 Protocol type (a first field...VMAN type) and field 51 VPN-ID (a second field...VMAN ID) wherein the VPN-ID specifies the VPN associated with the packet origin [0036].

Re Claims 41 and 48, wherein the ATM edge node uses the data structure (fig. 5) to determine the VPN ID by mapping of the Source address (a customer domain).

Re Claim 64, refer to Claim 34, wherein at the destination edge node (a first switch), the VPN-ID (VMAN ID) and Protocol type (VMAN type) is removed and the data packet forwarded to the destination packet format.

7. Claims 57-59, and 69 are rejected under 35 U.S.C. 102(e) as being anticipated by Baum et al (US Patent Number 6,771,673).

Re Claims 57, 58, and 69, Baum et al teaches in fig. 9, a access router 812.a (first switch) communication with another access router (a second switch) for forwarding a packet in accordance to fig. 13 data structure, the 802.1Q tag is associated with VPN-ID (VMAN ID) (See col. 16, lines 66 +).

Re Claim 59, wherein the access routers are associated with an VPN-ID.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for a obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (U.S. PG-Pub 2001/0005381)

Re Claim 35, As Sugiyama teaches the first and second fields, Sugiyama fails to explicitly teach that each field having "a length of two bytes". However, one skilled in the art would have used any number of bytes to differentiate between a number of VPN-ID and protocol type. Hence, a length of fields would have not been consequential as a whole as long as the fields are differentiated.

10. Claims 36-40, 43-47, 49-56, and 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (U.S. PG-Pub 2001/0005381) in view of Chang (U.S. PG-Pub 2003/0123448).

Re Claims 36, 43, and 66, Sugiyama fails to explicitly teach "third field VLAN type and fourth field VLAN ID. However, Chang teaches a CAM table that includes VLAN type and VLAN ID [0051+] for forwarding packets over the ATM network. In particular, Chang teaches that the VLAN ID and VLAN type is associated with the VCC information. VCC information can also be found in fig. 5 of Sugiyama. One skilled in the art would have been motivated to further map the VC number field with VLAN ID and VLAN type of Chang to enable mapping of VLAN-ID to VPN -ID to ensure QoS on the VLAN connectivity. Therefore, it would have been obvious to one ordinary skilled to combine the references.

Re Claims 37, 44, 55, and 67, Sugiyama in view of Chang fails to explicitly teach that each field having "a length of two bytes". However, one skilled in the art would have used any number of bytes to differentiate between a number of VPN-ID and protocol type. Hence, a length of fields would have not been consequential as a whole as long as the fields are differentiated.

Re Claims 38, 45, and 53, fig. 3, step 84 of Chang teaches CAM loop of MAC addresses.

Re Claims 39 and 46, fig. 3, step 78 of Chang teaches determining packet type.

Re Claims 40 and 47, wherein the packet has user data.

Re Claims 49, 54, 56, 65, and 68, Chang teaches an ATM edge node performing 802.1q tag discovery to determine whether the packet violates any ingress policy [0060]. Sugiyama teaches an ATM edge node associating VPN-ID (VMAN-ID) and protocol type (VMAN type) with QoS information. In view of Chang, one skilled would have motivated to tag VPN and protocol type of the packet to determine whether the forwarded packet is violated any ingress policies. Therefore, it would have been obvious to one ordinary skilled to combine the references for flow control.

Re Claim 50, refer to Claim 49, wherein the packet is forwarded to the destination ATM edge node via the VPN ID.

Re Claims 51 and 52, refer to Claim 36, wherein the mapped VLAN ID with the VPN ID are tagged for discovery.

11. Claims 60-63 and 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum et al (US Patent Number 6,771,673) in view of Chang (U.S. PG-Pub 2003/0123448).

Re Claims 60, 61, 70, 71, 73 and 74, Baum et al fails to explicitly teach "third field VLAN type and fourth field VLAN ID. However, Chang teaches a CAM table that includes VLAN type and VLAN ID [0051+] for forwarding packets over the ATM network. In particular, Chang teaches that the VLAN ID and VLAN type is associated with the VCC information. One skilled in the art would have been motivated to further map the VC number field with VLAN ID and VLAN type of Chang to enable mapping of VLAN-ID to VPN -ID to ensure QoS on the VLAN connectivity. Therefore, it would have been obvious to one ordinary skilled to combine the references.

Re Claims 62, 63, and 72, Baum et al in view of Chang fails to explicitly teach that each field having "a length of two bytes". However, one skilled in the art would have used any number of bytes to differentiate between a number of VPN-ID and protocol type. Hence, a length of fields would have not been consequential as a whole as long as the fields are differentiated.

Response to Arguments


12. Applicant's arguments with respect to claims 34-74 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hyun, Soon Dong phone number is 571-272-3121. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


S. Hyun
12/10/2007


CHI PHAM
SUPERVISORY PATENT EXAMINER

12/13/07